DOCUMENT RESUME

ED 478 646 CE 085 244

AUTHOR	Murray, Monica D.
TITLE	Learning Style Modalities and Attributes of an Effective Classroom Environment: An Analysis of Adult Learners in an Adult Basic Education Classroom.
PUB DATE	2002-00-00
NOTE	44p.; A Thesis Submitted in Partial Fulfillment of the Requirements for the degree of Master of Special Education, Brooklyn College.
PUB TYPE	Dissertations/Theses - Masters Theses (042) -- Reports - Research (143)
EDRS PRICE	EDRS Price MF01/PC02 Plus Postage.
DESCRIPTORS	*Adult Basic Education; Adult Dropouts; *Adult Learning; Adult Students; Aural Learning; *Classroom Environment; *Cognitive Style; Dropout Prevention; *Learning Modalities; Learning Strategies; School Holding Power; Teaching Methods
IDENTIFIERS	General Educational Development Tests; New York (New York)

ABSTRACT

An action research study attempted to identify the learning style prevalent among 7 male and 3 female adult learners in an Adult Basic Education (ABE) program in New York City and the attributes of a classroom environment that promote the retention of adult learners. These four learning style modalities were considered: concrete experience, abstract conceptualization, active experimental, and reflective observational. Results of data collected from adult learners enrolled in an ABE (GED) program found that the reflective observational style was the dominant and preferred style, and thus preferred detailed structure and organization, listening or auditory learning, and reading as methods of learning. In addition, ABE learners were satisfied with classroom environments that offer encouragement, sensitivity, respect, clear and organized delivery of instructional content, clarity, demonstrated fairness, and teachers who are accessible outside of the classroom. The findings suggest that if both the learning style and classroom environment are in accord with their preferences, then ABE learners will be more likely to complete classes. The researcher cites evidence that ABE learners probably find it difficult to learn new knowledge and skills if they are not presented in a visual form such as pictures and symbols. (Appendices include student consent form, learning style inventory, and student evaluation of instruction form. Includes 25 references, 1 table, and 3 figures.) (MO)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 478 646

Learning Style Modalities and Attributes of an Effective Classroom Environment: An analysis of adult learners in an Adult Basic Education Classroom

Monica D. Murray

A thesis submitted in partial fulfillment of the requirements for the degree of

Master of Special Education

Brooklyn College

2002

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
This document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.
Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY
M. Murray
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

BEST COPY AVAILABLE

Abstract

The purpose of this action research study was to identify learning style preferences, as well as to determine which characteristics of teachers and courses met with adult learners' expectations and actual experiences. I had hypothesized that complaints received from students about characteristics of teachers and courses combined with increases in the number of students dropping out of classes was possibly due to students' intrinsic learning style preferences. The participants chosen for this study were of adult learners enrolled in an adult basic education program (ABE). A cross-sectional survey method and frequency distribution of data were utilized for this study.

Results from the data found two important key findings. First, the reflective observational learning style is the dominant and preferred style of learning amongst ABE learners. Secondly, ABE learners are satisfied with classroom environments where there is encouragement, sensitivity, respect for them, clear and organized in delivery of instruction content, clarify, demonstrate fairness, and accessible to teacher outside the classroom. The implications of these findings suggest that satisfaction with characteristics of a classroom environment increases the likelihood ABE learners will complete classes and not dropout. In addition, there was strong evidence that ABE learners probably encounter difficulties when attempting to gain new knowledge, and skills if such knowledge and skills are not in a visual form such as pictures drawings and symbols. Further investigational studies are needed to determine whether an interrelationship exists between teaching styles and student learning styles to confirm the effects that one teaching style may have over another teaching style; and its influence on students rate of dropout. These findings provide insight for professionals who market, development, and design online course content. Given to the reflective orientation style of learning particular to ABE learners; computers might be an effective tool for delivery of instructional content given to a match between the visual learning style of ABE learners' and the visual environment of the computer.

ACKNOWLEDGMENTS

To her unwavering guidance, and endless patience,

and commitment to the educational plight of students.

I thank you, Dr. P. Bynoe

Table of Contents

Abstract....2
Acknowledgements....3

Chapter I:
Introduction....5
Problem Statement....5
Background....6
Guiding questions....6
Significance of Study....7
Definitions of terms....8
Limitation and delimitations....9

Chapter 2:
Review of Literature....10
Learning Style Preferences....10
Teacher and Course Characteristics....13

Chapter 3:
Methods....16
Setting....16
Participants....16
Procedures....17
Data collection Process....17
Instruments....17
Research design....19

Chapter 4:
Introduction and Analytic technique....20
Findings....20

Chapter 5:
Summary....26
Conclusions....27
Implications....29
Recommendations....30

References....31

Appendix -A Participant Consent form....33
Appendix -B Learning Style Inventory (LSI) instrument....34
Appendix -C Student Evaluation Instruction (SEI) instrument....35
Appendix -D Human Participant Protection for Research....36
Appendix -E Letter of Permission to Conduct Study....37

Chapter 1

LEARNING STYLE MODALITIES AND ATTRIBUTES OF AN EFFECTIVE CLASSROOM ENVIRONMENT: AN ANALYSIS OF LEARNERS IN AN ADULT BASIC EDUCATION CLASSROOM

Introduction

Statement of the Problem

This study was initiated to identify the learning style prevalence amongst adult learners, and the attributes of a classroom environment that promote retention of adult learners. During my eight years as a practitioner in the field of vocational-educational development, I have struggled to prepare adult learners for careers in the field of allied healthcare. Recently, there have been complaints from students, as well as a sudden increase in the rate of dropout amongst students in many of our courses, which created an attendance problem within many teachers' classrooms. Teachers were at a lost for solutions to the problem and or they attributed the number of dropouts to a combination of preacademic underexposures, and frustrations due to an inability to execute/perform academic tasks required in the class. On the other hand, students complain that teachers rush through the course material, write too quickly on the blackboard which that makes note taking very difficult for them; moreover, students complain that teachers either do not spend enough time on subject content matter, and or that content on tests were not covered nor reviewed in class before examinations. Unfortunately, student-teacher evaluations are not mandated by the department of education, nor required by our school administration. Consequently, teachers and myself are unable to identify adult learners' preferred learning styles, and unsure about which characteristics of their classroom environment satisfy adult learners, and in need of a solution to increase number of students who have been dropping out of our classes.

I hypothesized that adult learners' complaints about teachers, course characteristics, and the increased numbers of student dropouts were possibly due to a mismatch between students intrinsic learning style preferences and the instructional mode provided. For instance, an adult learner may engage exclusively in the use one of four learning style modalities (Kolb, 1985): Concrete experience style of learning (CE)- which emphasizes feeling as opposed to thinking, a concern with uniqueness and complexity of present reality as opposed to theories and generalizations, an intuitive "artistic" approach as opposed to the systemic, scientific approach to problems, abstract conceptualization (AC) - emphasizes thinking

as opposed to feeling, a concern with building general theories, as opposed to intuitively understanding unique, specific areas, a scientific as opposed to an artistic approach to problems. Active experimental style (AE) - emphasizes practical applications as opposed to reflective understanding, a pragmatic concern with what works as opposed to what is absolute truth, an emphasis on doing as opposed to observing; and or reflective observational style of learning (RO) - A focus on understanding the meaning of ideas and situations by carefully observing and impartially describing them. It emphasizes understanding as opposed to practical application, a concern with what is true or how things happen as opposed to what is practical, and emphasis on reflection as opposed to action.

The purpose of this action research study is to identify the styles of learning preferred, as well as the characteristics of classroom environments that met with students' expectations and actual experiences from the perspective of students enrolled in an adult basic education program. This study applies an action research approach to the problem under investigation. Action research uses a systematic approach to reflect on their day-to-day practice and enhance their delivery of instructions in the classroom. Moreover, action research is easily adapted to school settings and allows for research within the limits of time, resources and scheduling typically encountered by a practitioner (Mills, 2000). The direction of this study was guided by two basic questions:

1. **Is there a dominant learning style preference amongst adult learners?**

2. **Which characteristics of the classroom environment satisfy adult learners?**

Background

The adult basic education (ABE) program that is the focus of this study, serves an ethnically diversified population of adult men and women, ages 17 to 40 who did not complete their high school educations. ABE learners enroll in the adult basic education program for a host of reasons. They desire to upgrade their education and, broaden their employment opportunities through career training and development courses, as well as want to acquire hands on practice and experience with reading, writing and mathematics skills in order to enter vocational, job-training programs.

Typically, the traditional school system has not been responsive to ABE learners. Most of them have experienced difficulties learning within classroom environment. About 23 million adults possess basic skills at a fourth grade level or below, and are classified as functionally illiterate. An additional 35 million adults are semi-literate. That is, their reading and writing skills fall below an eighth grade level.

Illiterate and semiliterate adults account for 75% of the unemployed. In fact, approximately one-fourth of the perspective ABE adult learners currently enrolled in kindergarten through grade 12 will fail to complete high school (Office of Special Education Programs, 1999).

Similarly, the U.S. Department of Education reports that during the 1995-1996 school year, approximately 462,400adult learners over age 14 exited their special education programs (Office of Special Education Programs 1999). About 33% of these exiters' graduated including 6% who received certificates, 14% returned to general education programs, 23% moved and enrolled in other schools, and 18% left as known dropouts. Another 13% left under unknown conditions. It is not known whether those adult learners continued in school, but it is likely that this group included many dropouts (Office of Special Education Programs, 1999).

It seems reasonable to assume that many, if not most, of those men and women (yesterday's children who were not identified and or dropped out of the educational system previously) enroll in adult basic education classes, and theoretically, account for the incidence of adult learners with specific learning disabilities. Nonetheless, the adult basic education program has been more successful in attracting non-traditional learners, but has been less successful in decreasing the rate of dropout amongst its enrollees (Vogel, 1998).

As previously stated, this study was designed to explore adult learners' attitudes about characteristics teachers and courses to determine whether or not dissatisfaction exist within the ABE classroom, and to identify styles of learning preferences of adult learners.

Significance of the Study

This study is important because it identifies characteristics of teachers and courses that meet adult learners expectations. These findings can provide teachers with an evaluative yardstick to measure their delivery of instruction and design of course content, helping teachers recognize and understand the learning style modalities and what it mean to them in terms of future and current development of courses and teaching content.

Definition of terms

Academic achievement - is conceptualized as determination and decision to a complete GED course.

Adult learner - Anyone 18 years or older who did not graduate from high school, and enrolled in an adult basic education and training class.

Adult Basic Education program - A postsecondary school program that offers classes in remedial math, sixth- through eight-grade level preGED basic skills and secondary subject areas in the General Equivalency Diploma (GED) curriculum.

Classroom environment - Teacher and courses characteristics that exist mutually within a learning environment.

Drop out - A result due to dissatisfaction with classroom teacher and course content and anyone who has not graduated from high school or completed a State or District approved vocational/education program or curriculum of math, reading, science, history, and has not earned, obtained or hold any type of a General Equivalency Diploma nor a High School Credential.

General Equivalency Diploma (GED) - Credential issued by New York State Department of education to any qualified adult student who acquires prerequisite skills, abilities and knowledge in reading, writing mathematic through formal classroom instruction or independently.

Learning style modality - An individual's intrinsic patterns and preferences for receiving, and processing, interpreting and analyzation of information.

Preacademic underexposure - Students who from an early age are never sufficiently exposed to the written word. They fail to develop any attraction to reading or to perceive its relevance. They have little or no incentive to break the "reading code." They may have lacked the early experiences of pre-reading behaviors such as being read to, pretending to read, and looking at pictures in books or magazines. In some cases, these absent pre-reading behaviors may be associated with deficient early language development rather than a lack of exposure, as some children with language difficulties are apt to avoid the written word from an early age.

Tests of Adult Basic Education (TABE) - **A** test consisting of separate, 25 items multiple-choice tests for vocabulary and mathematics computation. Used for placement of students in preGED and GED classes.

Limitations and delimitations

This study was limited to adult learners, ages 17 and older that were enrolled in an Adult Basic Education Program in New York City. Participation was voluntary and without monetary compensation. Students with visual, serial language deficits, English-as-a-Second Language (ESL), Attention Deficit Disorders (ADD), Attention Deficit Hypertension Disorders (ADHD), emotional and neurological impairments as defined by Individuals with Disabilities Educational Act (IDEA) were excluded from this study to minimize the concomitant effects.

CHAPTER 2

REVIEW OF THE RESEARCH

Learning style refers to how people prefer to learn (Kolb, 1985). It supposes diverse elements that are not necessarily opposites or extremes (Riding & Cheema, 1991). A number of researchers have investigated the degree to which consistent patterns of learning style preferences distinguish high, middle and low achieving adult learners (Smith & Holliday, 1986). Reported patterns indicate that high achieving adult learners prefer independent study and are significantly more self-motivated, persistent, responsible, teacher and adult motivated, and prefer tactile rather than auditory instruction. They also prefer self-direction, flexibility, and options as well as a minimum of structure and lecture. Middle and low achieving groups prefer learning in groups rather than independently, variety and mobility to maintain attention, and learn best with an authority figure nearby them. While low achievers tend to have poor auditory memory, and when they learn visually, it usually is through pictures, drawings, graphs, symbols, comics, and cartoons rather than book text, they often want to do well in school, their inability to remember facts through lecture, discussion, or reading contributes to their low performance in conventional schools, and classroom environments where most instruction is delivered by teachers talking and adult learners listening or reading (Milgram, Dunn, & Price 1993).

Learning Style Preferences

Is there a dominant learning style preference amongst adult learners?

The most thoroughly developed theory of learning style is from a life span perspective is Kolb's (1976, 1984) theory of experiential learning. Kolb's theory of learning styles (Kolb, 1984; Kolb et al., 1971) points to a wide variety of process emphasized by different authors. The theory highlights the role of "experience" as the basis for learning. Kolb integrates diverse elements of the learning models proposed by Lewin, Dewey, and Piaget, suggesting an experiential cyclical model. Experience and the analysis of it can help to form concepts, which, once assimilated and organized by the learner may then be applied to new experiences. Learning is considered a process that creates knowledge through the transformation of experience. Similarly, the learning patterns reported conclude that high achieving adult learners prefer independent study and are significantly more self-motivated, persistent,

responsible, teacher and adult motivated, and prefer tactile rather than auditory instruction. They also strongly prefer self-direction, flexibility, and options as well as a minimum of structure and lecture.

Kolb designed the Leaning styles inventory (LSI), in order to measure the four learning style preferences or adaptive modes proposed by his theory: Concrete experience (CE) Reflective observation (RO), Abstract Conceptualization (AC), and Active experimentation (AE). There are four learning styles according to Kolb (1985b): Diverger (prevalence of CE and RO); Assimilator (AC and RO); Converger (AC and AE), and Accommodator (CE and AE). For instant, Divergers are learners who perceive information "concretely" and process it "reflectively," and who are typically imaginative creative and have a wide range of cultural interests. Accordingly, in any learning experience, learners must continually choose between abilities that are polar opposites. The first dimension from which they choose is between concrete experience versus abstract conceptualization, and feeling versus thinking. The second dimension is between active experimentation and reflective observation or an internal versus external attempt to understand the world. In other words, the individual, at varying degrees, moves from actor to observer and from specific involvement to analytic detachment. Therefore, the level of learning that results is determined by the way in which the conflicts between dialectically opposed modes of adaptation are resolved. If conflicts are resolved by suppressing one mode at the expense of another, learning tends to be specialized and limited to that dominant mode. Kolb (1981) further observed "as a result of our hereditary equipment, our particular past life experiences, and the demands of our present environment, most of us develop learning styles that emphasize some learning abilities over others" (p. 237).

Research with traditional age college adult learners has found them to prefer kinesthetic or hands-on experience. They exhibit peer and teacher affiliation and continue to prefer to learn in the presence of an authority figure. On the other hand, nontraditional college adult learners have been found to prefer detailed structure and organization, listening or auditory learning, and reading as methods of learning (Price, 1987). In other words, traditional college adult learners tend to be more active in their learning orientation, while non-traditional adult learners are more reflective (Gardner, 1988). This suggests that academic difficulty may be related to a mismatch between learning style and classroom environment.

Longitudinal studies among college adult learners (Price, 1987) indicate changes in learning style preferences from concrete to abstract approaches to learning moving from their freshman to senior years. Additional research also reveals differences in preferred learning style between younger and

older adults. Price (1987) investigated changes in learning styles from a randomly selected sample of persons 18 to 55 years old who had taken the Productivity Environmental Preference Survey. Results indicated that younger adults prefer to learn in the afternoon and evening, are more responsible, prefer kinesthetic learning, and like authority figures present while older adults prefer more structure, need more mobility, prefer auditory learning, like formal design, and learn either alone or with others. Price (1987) suggested that the results of his study provide evidence that adults continue to develop and change throughout life.

Davenport (1986) investigated the relationship of age and gender to learning style preferences. Learning style preferences were measured by the Gregorc Style Delineator (1982), a self-report, cognitive instrument designed to reveal the mediation abilities of perception and ordering. Davenport found gender to be a significant factor in learning style preference for older adults, but not age. Davenport concluded that this research supported previous findings, which indicate women and men differ in their learning style preferences. Based on descriptions of learning style preferences provided by the Gregorc Style Delineator, Davenport suggests it is more likely older women are attentive to human behavior, are more attentive to nuances in the atmosphere, and prefer group discussion. Older men, however, prefer audiotapes, lecture presentations, and extensive reading.

Contrary to Davenport's findings, Delargy (1991) found age to be a significant factor in learning style preference for a group of younger and older adults. Using Kolb's (1976) Learning Style Inventory (LSI), Delargy investigated the learning style preferences of older and younger men and women and found age to be a significant factor in learning style preference, but only for older (55 and over) and younger females. "While younger men and older men's preferences for abstract learning stayed, on the average, steady and relatively high, older females had a significantly greater preference for abstract learning than did the more concrete-oriented younger females" (p. 101). Although Delargy speculates that the differences between the learning styles of the older and younger women in her study might be attributed to the changing social roles of women, she found no significant differences in learning style preferences between the younger and older men nor between the older and younger groups.

Teacher and Course Characteristics

Which Characteristics of the Classroom Environment Satisfy adult learners?

Studies demonstrate that a significant relationship exist between adult learners' expectations and their actual experiences within the classroom environment. Feldman (1988) presented a synthesis of studies that employed surveys to examine the attributes of effective instructors. In most of the studies, adult learners and faculty were simply asked to specify the practices, behaviors, and attitudes of teachers that they felt were most important to teaching effectiveness. Although differences existed between student and faculty responses, their responses were generally highly correlated. Adult learners placed great importance on instructors being prepared and organized, clear and understandable, and sensitive to class level and progress. However, adult learners placed greater emphasis on instructors being interesting and on the instructor's presentation skills, whereas faculty responses generally placed more importance on intellectually challenging the adult learners and encouraging self-initiated learning Feldman (1988). Another study by Spencer and Schmelkin (1995) found that adult learners considered issues of clarity, faimess, and respect to be paramount in the determination of instructor effectiveness. With regard to faculty perspectives, Schmelkin, Spencer, and Gellman (1997) found that the usefulness of student feedback is viewed differentially by faculty; instructors attached greater value to feedback regarding their interaction with adult learners and grading issues as opposed to structural issues of the course.

Nelson and Lynch (1984) used student evaluation data for economics instructors to test for the existence of grade inflation. The authors specified a multi-equation model that simultaneously determined adult learners' grades, instructor quality scores, and overall course quality ratings. They proposed that student ratings of instructors influenced by a number of factors, such as course characteristics, certain student characteristics (including adult learners' expected grades), and instructor characteristics. Their model included ratings on selected questionnaire items to control for the impact of instructor characteristics on instructors' overall quality ratings. Nelson and Lynch (1984) found that the organized presentation of materials and the instructor's interest in the topic had a positive and significant impact on instructors' quality ratings, whereas accessibility of the instructor and grading policies did not have a significant impact.

Mason, Steagall, and Fabritius (1995) presented a study that analyzed the influence of instructor characteristics on instructional quality. These authors measured the impact of numerous instructor,

student, and course characteristics on the effectiveness ratings received by economics instructors. Responses on 19 questionnaire items related to specific teacher characteristics represented instructor characteristics in the model. However, the student evaluation questionnaire used in their study did not appear to provide information on a number of important instructor characteristics. For example, it failed to include specific questions pertaining to the instructor's enthusiasm for the subject, the organization of lectures, or whether the instructor explained the material clearly. Nonetheless, they found that most of the included questionnaire items increased effectiveness ratings. Instructor characteristics that did not influence instructor effectiveness were the instructor's accessibility, whether the instructor made helpful comments on exams, and whether the instructor encouraged adult learners to think independently. Again, identification of instructor attributes that were more important in determining instructor effectiveness was hindered by the inclusion of a large number of closely related explanatory variables.

Based on conceptual arguments, proponents of the multidimensional view of teaching would challenge the general method used by DeCanio (1986), Mason, Steagall, and Fabritius (1995), and Nelson and Lynch (1984). Proponents of the multidimensional view of the education process hold that because of the multidimensional nature of teaching, instruction simply cannot be captured by one single measure, such as an effectiveness rating (Marsh 1997). Instead, they argue that multiple measures of instructor attributes are needed to characterize appropriately the effectiveness of instructors. Therefore, they have focused on defining and quantifying the various attributes of instructors, without relating these attributes to a single measure of overall effectiveness.

However, the multidimensional view of instruction is not unchallenged. For example, Abrami (1989) argued that it makes neither conceptual nor empirical sense to speak of teaching as a multidimensional concept. Recognizing that the nature of effective teaching can vary across instructors, courses, adult learners, and settings, Abrami (1989) considered teaching to be a unidimensional process that can be appropriately represented by a single effectiveness measure.

Aside from the debate on the multidimensional nature of instruction, the use of SEI data to assess instructor effectiveness is not without controversy. Despite anecdotal evidence to the contrary, much of the relevant literature concludes that student evaluation surveys are generally consistent and valid (Arreola 1995). However, more recent studies challenge this view and suggest that effectiveness ratings are indeed biased by instructor characteristics unrelated to teaching effectiveness, such as the

instructor's popularity among his or her adult learners, the grades that adult learners expect to receive, or the difficulty of the material presented (Mason, Steagall, and Fabritius 1995). Based on this new evidence, a consensus seems to have been reached that more effort should be directed toward ensuring a more careful interpretation of student ratings in the tenure and promotion process and, if possible, to supplement SEI ratings with other measures of teaching effectiveness (Abrami 1989).

Summary

As evidenced by the research findings, learning style preferences and effectiveness of a learning environment tends to support my hypothesis that adult learners do manifest significant variations in how they prefer to learn in a classroom setting. This includes adult learners participating in regular education curricula, gifted adult learners, as well as those adult learners receiving special education services. Research findings regarding learning style preference and attributes of effective classroom environments appear to be relatively consistent. Learning style researchers have investigated the degree to which consistent patterns of learning style preferences distinguish high, middle and low achieving adult learners (Smith & Holliday, 1986). The research upholds the hypothesis stated earlier that a mismatch between adult learners' learning environment and learning style preferences would perpetuate dissatisfaction within learners' environment which that dissatisfaction influences the likelihood that they will drop out of their classes.

Chapter 3

Subjects

Adult learners enrolled in an adult basic education general education (GED) program within a college setting located in New York City were the focus group of this study. This adult basic education program is composed of classes in reading, writing, and math classes for adult learners. Adult students attend one class and subject only every two and half months. The sample size for this study included 7 male and 3 female adult learners. All students enrolled in adult basic education were invited to participate, and they were informed about the purpose for this study. Table 1, below summarizes the general characteristics of the population profile sample. The sample consisted of a heterogeneous mix of (African Americans 5; Hispanic 2; Asian 2; and Pakistani 1). Three females and seven males, age 17 through 40. There were five participants in the 17 to 18-age range, two participants in the 24 to 25-age range, and three participants in the 38-age range group. Students present in class on day of study were chosen for participation.

Table 1

Study Participants' Demographic Profile (n=10)

		Student gender	Student's age	Ethnic	Class
1		Male	18	blk, non-Hispanic	PreGed
2		Male	38	blk, non-Hispanic	GED
3		Male	18	blk, non-Hispanic	PreGed
4		Male	38	Asian or Pacific Island	GED
5		Female	38	blk, non-Hispanic	PreGed
6		Female	25	Chican/Mexican American	PreGed
7		Female	24	Puerto Rican	GED
8		Male	17	blk, non-Hispanic	GED
9		Male	18	Hispanic	GED
10		Male	39	Hispanic	PreGed
Total	N	10		10	10

BEST COPY AVAILABLE

Procedures

I theorized that adult learners at or near completion of (preGED or GED) classes would provide the best measure of response reliability for this study because their opinions and attitudes would have been formulated by their experiences, at the end of the semester. Thus, teachers and students were first informed three weeks prior and agreed to participant in this study. Participants were informed that the purpose of study was to learn about adult learning styles, attitudes about the learning environment, and their right to discontinue participation at any time during study and that they would be responding to two brief questionnaires regarding their preferred learning style and an evaluation of the teacher and course. Each participant received a packet, which included a consent form, and two questionnaires of closed- ended question items. Students were recruited, and participated voluntarily, and they were asked to participate and render their opinions by completing two surveys (SEI) and (LSI), which required them to respond to a series of question items. Surveys distributed within each classroom. Participants were allowed an average of 60 minutes to complete the survey questionnaires.

Data Collection Process

Survey data was grouped into categories, and measured with SPSS statistical program. Results from the data collected was grouped into three categories and described as follows: Teacher characteristics, course characteristics, and learning style preferences. Figures and tables were used to integrate, illustrate and categorized data into numerical values for interpretation and analysis of the observed results.

Instruments

Two survey instruments were used to collect data, The Student Evaluation of Instruction (SEI) and the Learning Style Inventory (LSI) surveyed attitudes and perceptions about the classroom environment. The Kolb (LSI) instrument, is an appropriate measure of learning style preferences of adults, and was for that reason, the learning style instrument chosen for this study. Following is a description of the four learning style modality preferences identified by the Kolb (1984) learning style scale as described in chapter two: The Learning Style Inventory (LSI) survey for each participant was scored according to the directions provided in the scoring and interpretation booklet (Kolb, 1985). The LSI is a 12-item instrument that requires each participant to rank order four preferences for learning. A score of 4, indicates most preferred choice ranging down to 1, for least preferred choice. Resulting rankings were placed in 4 columns, which relate to each of the learning modes: concrete

experience (CE), reflective observation (RO), abstract conceptualization (AC), and active experimentation (AE). Each column was totaled and the scores were totaled on a grid, which indicated which learning style each participant subject preferred most (i.e., AC, AE, RO, or CE) as previously mentioned and outlined. A sample form is attached in appendix B.

The Student Evaluations of Instruction (SEI) instrument was developed by this practitioner to measure the quality[6] of a classroom environment. The instrument is comprised of 18-items drawn from the literature on measurement of customer satisfaction in education and management (Hayes, 1997). It is a formative measure of "student satisfaction", as well as an informational tool used in reflective decision-making about course content and methods, and techniques for delivery of instruction. The SEI instrument was designed to allow respondents to respond in varying degrees to each item as it describes the classroom environment. The SEI survey conforms to a Likert protocol. Respondents rate characteristics of the course and teacher on a continuum (1=strongly agree, 2=Agree, 3=uncertain, 4=disagree, 5=Strongly disagree). The instrument is scored by distribution and frequency of ratings scores, and has shown to provide reliable statistics (Fox, 1984). Instrument items are written on a six-grade level and in a straightforward format, but more likely below six-grade readability. Readability and comprehension of items was tested in classrooms on adult learners in vocational educational training during the past three years to determine how well they understood and could respond to the questions and how well their responses could be recorded. After an initial pilot test, some revisions were made in the final version of the questionnaire. A minimum possible low-end score of 18 represents a positive response, while a maximum high end score of 90 represents a negative response. The use and rationale of the SEI provide a consensus, and constitutes a measure of the learning climate on two dimension of that environment. The Student Evaluation of Teacher Instruction (SEI) instrument is presented in (Appendix C).

Reliability of Likert scales tends to be good and, partly because of the greater range of answers permitted to respondents is often higher than that of corresponding Thurstone scales; a reliability coefficient of .85 is often achieved. The scale makes no pretence at equal-appearing intervals but by using the internal-consistency method of item selection, it approaches uni-dimensionality in many cases. The number of items in a Likert scale is arbitrary but is sometimes very small. The most serious criticism leveled against this type of scale is its lack of reproducibility (in the technical sense): The same

total score may be obtained in many different ways. That being so, it has been argued that such a score has little meaning or that two or more identical scores may have very different meanings. Often, for this reason, the pattern of responses becomes more interesting than the total score (Oppenheim, 1992).

Research design

A cross-sectional survey design and frequency distribution was used for this study. The strength of this study lies in utilization of adult learners' opinions and attitudes. These respondents are in an excellent position to explicate their perceptions and attitudes because they are the recipients of direct contact with adult basic educational services, training and teachers.

Chapter 4.

Introduction and Analytic technique

The purpose of this descriptive study was to analyze characteristics of teachers and courses that are perceived by ABE learners as satisfactory, and to identify the learning style preferences which are particular to ABE learners who attend adult basic education classes. Survey data was categorized, measured and analyzed with SPSS statistical program. Data from the SEI and LSI surveys was grouped into three categories and described as follows: Teacher characteristics, course characteristics, and learning style preferences. Figures and tables were used to integrate and illustrate data and categorized into numerical values for interpretation. This study was designed to explore adult learners attitudes about teacher and course characteristics to determine whether dissatisfaction exist within the ABE classroom, and to identify learning styles preferences of adult learners. It was hypothesized that given much recent complaints about teachers, course characteristics, and the increased number of dropouts were possibly due to adult learners' intrinsic learning style preferences and dissatisfaction with characteristics of the classroom. The findings of this study were guided by the next two questions.

Findings:

Question 1. Is there a dominant learning style modality amongst adult Learners?

To assess adult learners' responses to the survey question items on the Kolb's learning style inventory scale (LSI), a frequency distribution was conducted on survey responses. There was significant variations in adult learners' preferred learning style modalities as indicated on the Kolb learning style scale. Results observed from the data are reported below and respectively illustrated on the bar graph in Figure 2, page 25.

Preferred Styles of Learning amongst ABE learners

Reflective observation - On the Kolb scale of learning style, the response score (37) indicated that ABE participants preferred a reflective observation (RO) learning style orientation. That is, ABE learners reflected and observed experiences from many perspectives. ABE respondents identified the (RO) as their significant style of preferred learning mode.

Active experimental - On the Kolb, scale of learning style the response score (31) indicated that ABE participants preferred an active experimental (AE) learning style orientation. ABE learners suggested

that they used these theories to make decisions and solve problems. ABE respondents identified (AE) as their sub-dominate preferred learning style mode.

Abstract conceptualize - On the Kolb scale of learning style, the response score (29) indicated that ABE participants preferred an abstract conceptualize (AC) learning style orientation. That is, ABE learners created concepts that integrate their observations into logically sound theories. ABE respondents identified (AC) as their least preferred learning style mode.

Concrete experience - On the Kolb scale of learning style, the response score (28) indicated that ABE learners' preference toward a concrete experience (CE) learning style orientation. This score suggests that ABE learners want to involve themselves fully, openly and without bias in new experiences. ABE respondents identified the (CE) style of learning as their least preferred learning style mode.

Grouped findings on the learning style inventory indicated that the reflective observation style of learning is the dominate style of learning preferred by ABE learners; while the active experimental, abstract conceptualization, and concrete experience are subdominant styles of learning preferred and practiced least by ABE learners.

Question 2. Which elements of the classroom environment satisfy adult learners?

Course Characteristics that satisfy ABE learners

To assess attitudinal responses on survey about course characteristics of classroom environment, a frequency distribution was conducted on data collected by the SEI survey. Results observed from the data are reported below and respectively illustrated on the bar graph in figure 2, page 26. Course characteristics measure the extent to which adult learners are satisfied with elements of the delivery.

Question 1, asked ABE participants: *Did they understand the subject matter?* The score (1.75) shown in figure 2 indicates that respondents rated this question as either one, strongly agree or two, agree that they understood the subject matter.

Question 2, asked ABE participants: *Whether the course is being poorly coordinated?* The score (3.48) shown in figure 2 indicates that respondents rated this question as 3, which means that ABE learners were uncertain if the course was poorly coordinated.

Question 3, asked ABE participants if *the Course is challenging?* The score 1.50 shown in figure 2 indicates that respondents rated this question as 1, meaning that ABE learners strongly agree that the course was challenging to them.

Question 4, asked ABE participants whether *assessment methods are fair?* The score 2.0 shown in figure 2 indicates that respondents rated this question as 2, meaning that ABE learners agree that the assessment methods were fair to them.

Question 5, asked ABE participants whether *course materials are well prepared?* The score 2.0 shown in figure 2 indicates that respondents rated this question as 2, meaning that ABE learners agree that the course materials were well prepared.

Question 6, asked ABE participants, whether the *Proposed aims of course are being implemented?* The response rating 1.75, indicates that respondents rated this question as either 2 agree or 1 strongly agree that the proposed aims of the course were being implemented.

Question 7, asked ABE participants whether they *believed they are learning something valuable?* The response rating (1.56) indicates that respondents rated question seven between 1 strongly agreed and 2 agree that they were learning something valuable.

Question 8 asked ABE participants if the *Recommended readings contribute to understanding in the course?* The rating (2.0) indicates that respondents rated question eight as a 2, and agree that the recommended readings helped them.

Overall, group findings regarding characteristics of instruction indicated there is agreement amongst ABE learners that course content is delivered to their satisfaction as reflected in a studies conducted by other researchers.

Teacher characteristics that satisfy ABE learners

To assess the attitudinal responses collected by the Student Evaluation of Instruction (SEI) survey, a frequency distribution measure was utilized on survey data collected. Results observed from data on the SEI survey are reported below and respectively illustrated on the bar graph in figure 3, page 26.

Question item 9 asked ABE participants whether the *Teacher communicates effectively?* The score 1.75 shown in figure 2 indicates that respondents rated question nine between 1, strongly agree and 2 agree that their teacher communicates effectively.

Question item 10 asked ABE participants whether *Teaching style makes note taking difficult?* The score 3.55 shown in figure 2 indicates that respondents rated this question 3, uncertain if the teaching style makes note taking difficult.

Question item 11, asked ABE participants whether *Teacher enthusiastic about teaching this course?* The score 1.55 shown in figure 2 indicates that respondents rated this question as a 2 and agree that their teacher is enthusiastic about teaching the course.

Question item 12 asked ABE participants whether *Teacher stimulates my interest in this subject?* The score 1.78 shown in figure 2 indicates that respondents rated this question as 2, and agree that their teacher stimulates their interests in the subject matter.

Question item 13 asked ABE participants whether the *Teacher interested in learners?* The score 1.75 shown in figure 2 indicates that respondents rated this question as 2, and agree that their teacher is interested in them.

Question item 14 asked ABE participants if the *Teacher accessible to adult learners outside classes?* The rating 2.20 indicated that respondents agree that their teacher is accessible to them outside classes.

Question item 15 asked ABE participants if the *teacher encourages adult learners to express ideas?* The rating scale indicated 1.80 agree that their teacher encourages them to express ideas.

Question item 16 asked ABE participants if the *Teacher is well organized?* The score 2.0 indicates that respondents agree with the question that their teacher is well organized.

Question item 17 asked ABE participants whether *teacher is confident.* The score 1.75 shown in figure 2 indicated that respondents rated this question as 2, meaning that ABE learners agree that their teacher is confident.

Question item 18 asked ABE participants if *Teacher gives clear explanations.* The 1.8 score of this question indicated that of respondents agree that teacher gives clear explanations.

Over all group findings regarding characteristics of teacher indicated agreement amongst ABE learners that teachers are caring and understanding and they are satisfied with their teachers.

Figure 1 **Kolb's Leaning Style Inventory (LSI) Scale**

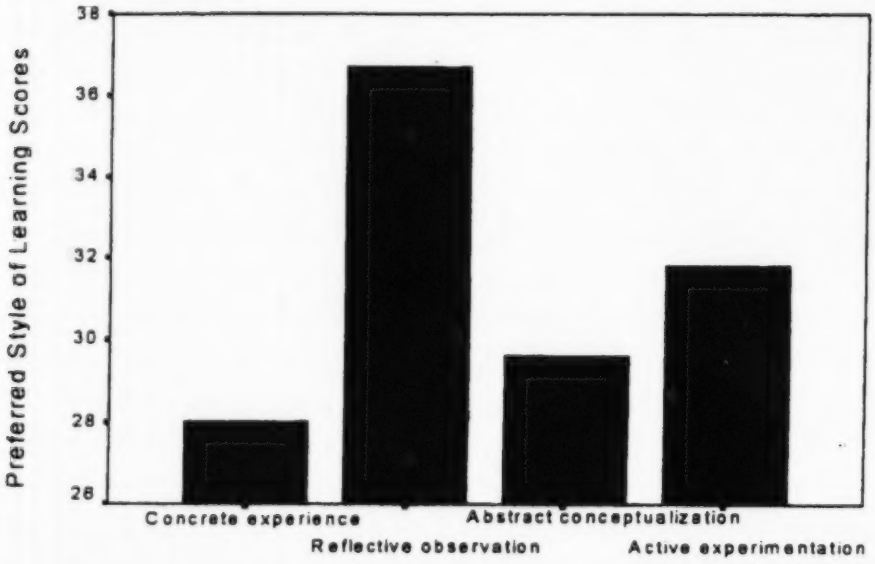


Figure 2 **ABE Learners' Evaluation of Course Characteristics**
Sample size =10

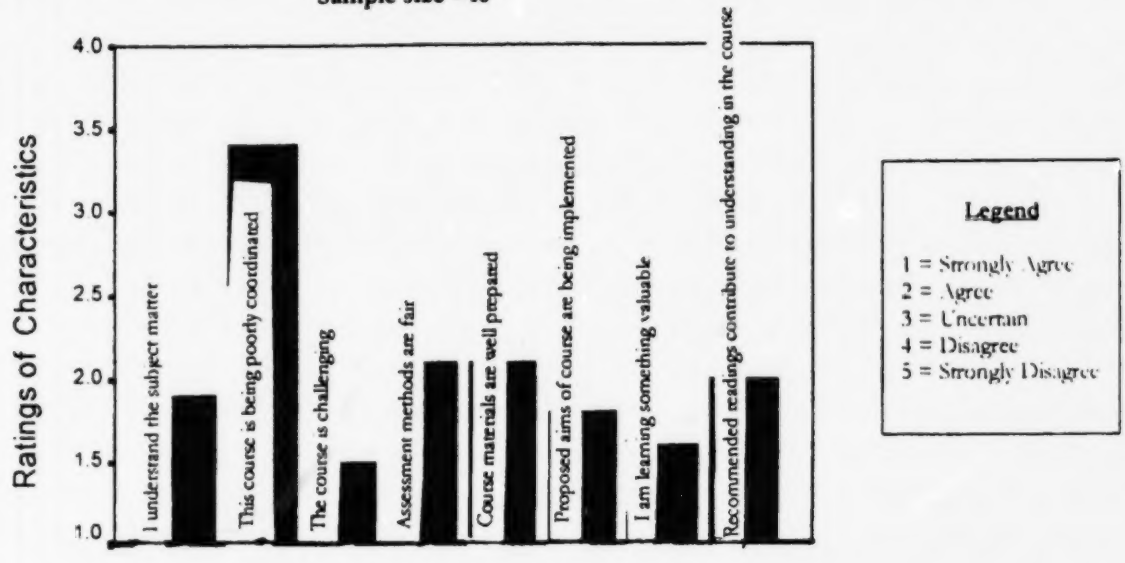
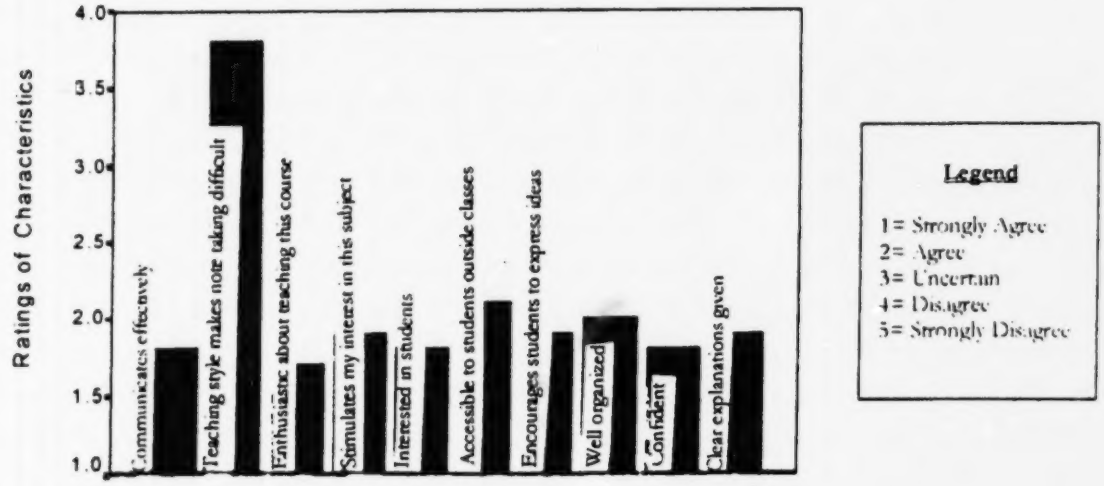


Figure 3 **ABE Learners' Evaluation of Teacher Characteristics**
Sample size =10



Chapter 5

Summary

The purpose of this action research study was to identify learning style preferences, as well as to determine which characteristics of teachers and courses met with adult learners' expectations and actual experiences. I had hypothesized that complaints received from students about characteristics of teachers and instructional course work combined with increases in the number of students dropping out of classes was possibly due to students' intrinsic learning style preferences. The participants chosen for this study consisted of adult learners enrolled in an adult basic education program. A cross-sectional survey method and frequency distribution of data were utilized for this study.

Significance of findings

Results from the data found two important key findings. First, the reflective observational learning style is the dominate and preferred style of learning amongst ABE learners; secondly, ABE learners are satisfied with classroom environments where there is encouragement, sensitivity, respect for them, clear and organized in delivery of instruction content, clarify, demonstrate fairness, and accessible to teacher outside the classroom.

These results suggests that satisfaction with characteristics of a classroom environment such as teachers who are interesting, and demonstrate fairness, respect and presents instruction in caring, and understanding manner increases the likelihood ABE learners will complete classes and not dropout. In addition, there was strong evidence that ABE learners probably encounter difficulties when attempting to gain new knowledge, and skills if such knowledge and skills is not in a visual form such as pictures drawings and symbols. Further investigational studies are needed to determine whether an interrelationship exists between teaching styles, and student-learning styles to confirm the effects one teaching style may have over another teaching style and its influence on students rate of dropout. Does teaching style matter as long as teacher and course characteristics found in this study are present within a classroom environment is a question that needs to be answered with further studies too. Nonetheless, these findings provide significant insight for professionals who market, development, and design online course content. Given to the reflective orientation style of learning, particular to ABE learners; computers might be an effective tool for delivery of instructional content given to a match between the visual learning style of ABE learners' and the visual environment of the computer.

Conclusion

Before discussing the implications, I wish to point out several limitations of this study. First, the data reflected the attitudes and opinions of small sample of ABE learners with reading levels that were below 6th grade as measured by the TABE test of basic ability given to participants in the adult basic education program. Moreover, these ABE participants had been out of school for up to 1 year or more, and this too may have affected their responses. Second, this researcher had to reinterpret the meaning or clarify questions for some ABE participants. Third, the study sample may represent a subgroup of dropout referred to in the literature as "stopouts" (students who are likely to come back if offered the opportunity) rather than final dropouts. This is reflected in the possibility that a number of ABE participants who were absent on the day and date this study were conducted. Therefore, those opinions and attitudes of true "dropouts" is not that which is necessarily reflected in this study.

In terms of key finding, a number of implications appear noteworthy. The composition of preferred styles of learning found amongst ABE adult learners in figures 1, largely coincided with Kolb's model for learning styles scale (Kolb, 1976, 1984) and other researchers. The present research found that a high proportion of ABE learners prefer to use a reflective observational (RO) style of learning. Adult learners with an orientation toward the (RO) learning style focus on understanding the meaning of ideas and situations by carefully observing and impartially describing them. It emphasizes understanding as opposed to practical application, a concern with what is true or how things happen as opposed to what is practical, and emphasis on reflection as opposed to action. People with a reflective orientation (RO) enjoy thinking about the meaning of situations and ideas and are good at seeing their implications. ABE learners are good at looking at things from different perspectives and at appreciating different points of view. They like to rely on their own thoughts and feelings to form opinions. People with this orientation value patience, impartiality, and considered, thoughtful judgment, Kolb's (1976, 1984). As a result, these adult learners are often categorized as low achievers who tend to have poor auditory memory, and when ABE learners learn visually, it usually is through pictures, drawings, graphs, symbols, comics, and cartoons rather than book text, they often want to do well in school, yet their inability to remember facts through lecture, discussion, or reading contributes to their low performance in conventional schools, and classroom environments where most instruction is delivered by teachers talking and adult learners listening or reading (Milgram, Dunn, & Price 1993). This results shown in figure 1, indicate a high preference for the Reflective Observational modality of learning, as compared to the AE, CE, and AC modalities; a strong probability that Adult

learners may encounter difficulties when gaining new knowledge, and skills if such knowledge and skills course content is not in the visual form of pictures drawings and symbols.

ABE learners with an active experimentation (AE) orientation reflect applying practical strategies (Atkinson, 1991). (AE) style of learning is the secondary modality of preferred learning, with the abstract conceptualization. Similarly, adult learners with an orientation toward the (AE) focus on actively influencing people and changing situations. It emphasizes practical applications as opposed to reflective understanding, a pragmatic concern with what works as opposed to what is absolute truth, an emphasis on doing as opposed to observing. People with an active experimentation orientation enjoy and are good at getting things accomplished. ABE learners are willing to take some risk to achieve their objectives. They also value having an impact and influence on the environment around them and like to see results.

ABE learners with an abstract conceptualization (AC) orientation focus on using logic, ideas, and concepts. It emphasizes thinking as opposed to feeling, a concern with building general theories as opposed to institutively understanding unique, specific areas, a scientific as opposed to an artistic approach to problems. A person with an abstract conceptual orientation enjoys and is good at systematic planning, manipulation of abstract symbols, and quantitative analysis. People with this orientation value precision, the rigor and discipline of analyzing ideas, and the aesthetic quality of a neat, conceptual system.

ABE learners with a concrete experience (CE) orientation immerse themselves in the immediacy of an experience; (CE) style as the sub dominant modality of preferred learning amongst adult learners within the adult basic education program. According to the Kolb scale of learning style assessment, adult learners with a concrete experience learning style preference focus on being involved in experiences and dealing with immediate human situations in a personal way. It emphasizes feeling as opposed to thinking, a concern with uniqueness and complexity of present reality as opposed to theories and generalizations, an intuitive "artistic" approach as opposed to the systemic, scientific approach to problems. People with a concrete experience orientation enjoy and are good at relating to others. ABE learners are often good intuitive decision makers and functions well in unstructured situations. People with this orientation value relating to people, being involved in real situations, and an open-minded approach to life.

The composition of ABE learners' response items on the student evaluation of instruction shown in figures 2 and 3 largely coincided with the characteristics found by other researchers. There was significant agreement amongst ABE learners' that characteristics of teachers and courses such as communicates effectively, is enthusiastic about teaching, stimulates their interests, interested in them, accessible to them outside classes, encourages them to express their ideas, is well organized, confident and gives clear explanations. ABE adult learners than any other ranking ranked these attributes highly. Several other researchers also reported the importance adult learners attach to characteristics of teachers. Adult learners placed great importance on instructors being prepared and organized, clear and understandable, and sensitive to class level and progress. However, adult learners placed greater emphasis on instructors being interesting and on the instructor's presentation skills, whereas faculty responses generally placed more importance on intellectually challenging the adult learners and encouraging self-initiated learning Feldman (1988). Another study by Spencer and Schmelkin (1995) found that adult learners considered issues of clarity, fairness, and respect to be paramount in the determination of instructor effectiveness. This result suggests that ABE learners are satisfied with the characteristics of their teachers and courses within the classroom environment.

Implications

The results from this study confirmed the present hypothesis, and purpose for which this study was conducted. Adult learners are orientated towards the use of the reflective observation style of preferred learning. Classroom environments or teachings styles where academic tasks focus and require memorization of facts through lecture, discussion, or reading contributes to their frustrations, low performances, and may well influence their decisions to dropout from their ABE classes. Since ABE learners are low achievers who tend to have poor auditory memory they learn visually through pictures, drawings, graphs, symbols, comics and cartoons. While they can do well in school, it seems that their Reflective Observational style of preferred learning inhibits the academic abilities necessary for academic success. The high preference for the Reflective Observational modality of learning, as compared to the AE, CE, and AC modalities, suggests that Adult learners may encounter difficulties when gaining new knowledge, and skills if such knowledge and skills course content is not in the visual form of pictures drawings and symbols. This may support teachers' theory of pre-academic underexposure, which they held to be one of the reasons for an increase in the number of students dropping out of their classes. Further investigational studies are needed to determine whether or not an interrelationship exist between teaching styles, and student learning styles to confirm the effects one

teaching style may have over another teaching style and its influence on students rate of dropout? Does teaching style matter as long as teacher and course characteristics found in this study are present within a classroom environment is a question that needs to be answered with further studies too.

Overall, the students' evaluation of teacher instruction indicated that ABE learners were satisfied with the characteristics of the classroom environment. Nonetheless, at what point would a teachers' style of teaching influence or hinder learning and ABE learners' decision to dropout of the GED or preGED classroom? Is there one or more peculiar teaching styles that are more or less effective to use with ABE learners? Should ABE learners be taught how to use each mode when it is appropriate and be come competent in the use of all learning style modes? Answers to those questions would provide significant insight for professionals who market, development, and design of online classes. Given to the instructional leaning needs of ABE learners, and technological ability of computers to deliver visual forms of content to its receiver, online classes might an effective method for the delivery of instruction to an adult learner population.

Recommendations

In theory, development of classroom content that is less written, and more visually orientated could increase learning as well as student attendance rates. Yet, from a practical point of it would be more beneficial to teach students how to use other learning style modalities which that help bridge their learning gap difficulties and would also enable them to succeed on academic tasks within the classroom.

Provide teacher training in the development of visual content matter. Include an online twenty-four hour instructional component for students who need additional assistance. Conduct further investigational studies and research in order to understand reasons why adult learners dropout of adult basic education program before completion of classes.

References

Abrami, P. C. (1989). How should we use student ratings to evaluate teaching? Research in Higher Education 30 (2): 221-27.

Arreola, R. A.. (1995). Developing a comprehensive faculty evaluation system. Bolton, Mass.

Davenport, J. A. (1986). Learning style and its relationship to gender and age among elderhostel participants. Educational gerontology, 12, 205-217.

DeCanio, S. J. (1986). Student evaluations of teaching-A multinomial logit approach. The Journal of Economic Education 17 (Summer): 165-76.

Delargy, C. B. (1991). The relationship among age, gender, and learning style as measured by Kolb's Learning Style Inventory. (Doctoral dissertation, The University of Georgia, 1991). Dissertation Abstracts International.

Feldman, K.A. (1976). The superior college from the students' view. Research in higher Education 5(3): 243-88. —.1988. Effective college teaching from the and faculty's view: Matched or mismatched priorities? Research in Higher Education 28 (4): 291-328.

Fox, R. D. (1984). Learning styles and instructional preferences in continuing education for health professionals: A validity study of the LSI. Adult Education Quarterly, 35, 72-85.

Gardner, R. (1988). Verbal-report data on cognitive and metacognitive strategies in: C.E. Weinstein, E.T.Goetz &P.A. Alexander (Eds) Learning and Study Strategies (New York Academic Press).

Gay, L.R. (1996). Educational research: Competencies for analysis and application (5th ed).

Kolb, D. A. (1984). Experiential learning: Experience as the source of learning and development. Englewood Cliffs, NJ: Prentice Hall.

Kolb, D. A. (1985). Learning style inventory. Boston, MA: McBer.

Kolb, D. A., & Wolfe, D., in collaboration with R. Fry, G. Bushe, G. Gish, W. Griggs, J. Gypen, S. Manning, & R. Sims. (1981). Professional education and career emplomentt: A cross-sectional study of adaptive competencies in experiential learning.

Mason, P. M., J. W. Steagall, and M. M. Fabritius. (1995). Student evaluations of faculty: A new procedure for aggregate measures of performance. Economics of Education Review 14 (4): 403-16.

Milgram, R. M., Dunn, R., & Price, G. E. (1993). Teaching and counseling gifted and talented adolescents: An international learning style perspective. Westport, CT: Praeger.

Mills, E. G. 2000. Action Research: A guide for the teacher researcher. Upper Saddle: NJ. Prentic Hall.

National Adult Literacy & Learning Disabilities Center. (1995, Summer). Adults with learning disabilities: Definitions and issues. Washington, DC: Academy for Educational Development and the National Institute for Literacy.

Nelson, J. P., and K. A. Lynch. (1984). Grade inflation, real income, simultaneity, and teaching evaluations. Journal of Economic Education 15 (Winter): 21-37.

Price, G. E. (1987). Changes in learning style for a random sample of individuals' ages 18 and older who responded to the Productivity Environmental Preference Survey. Lawrence, KS: University of Kansas.

Schmelkin, L. P., K. J. Spencer, and E. S. Gellman. 1997. Faculty perspectives on course and teacher evaluations. Research in Higher Education 38 (5): 575-92.

Skinner, L., Gillespie, P., & Balkam, L. (1999). Teaching adults who learn differently: Reading comprehension. Resource Directory: Dimensions of Dyslexia (Southern California Consortium of the International Dyslexia Association), 8, 1921.

Smith, D., & Holliday, P. (1986). Learning style and academic achievement in fourth, fifth and sixth grade adult learners. San Francisco.

U.S. Dept of Education, Office of Special Education Program (1999). Assistance to States for education of handicapped children: Procedures and Policies for evaluating specific learning disabilities.

Vogel, S.A. (1998). Adults with learning disabilities. In S.A. Vogel & S. Reder (Eds.) Learning disabilities, Literacy, and adult education (pp.5-28). Baltimore: Paul H. Brooks.

Warner, M. M., Schumaker, J. B., Alley, G. R., & Deshler, D. D (1980). Learning disabled adolescents in public schools: Are they different from other low achievers? Exceptional Education Quarterly, 1(2), 27-35.

White, W.J., & Polson, C.J. (1999). Adults with disabilities in adult basic education centers. Adult Basic Education: An Interdisciplinary Journal for Adult Literacy Educators, 9 (1), 36-45.

Appendix A

Student Consent to Participate in Study

Dear Student:

I am interested in adult learning styles, and attitudes about school. As a requirement for completion of my master degree in special education, I am conducting this study to explore the effects of adults learning styles and attitudes on academic achievement.

You will be asked to fill-out a questionnaire and a learning style survey.

All information is confidential. Your name will not be used. I will share the results of the study with you upon completion. Your participation is strictly voluntary.

By participating in this study, you will provide valuable information about adult student's attitudes about school and learning styles. All information will be kept confidential. If you will participate, please sign your name below.

Signature: _____ Date: _____

Thank you for your assistance,

Monica Murray
Student researcher

CC: file

How would you describe yourself? (Optional)

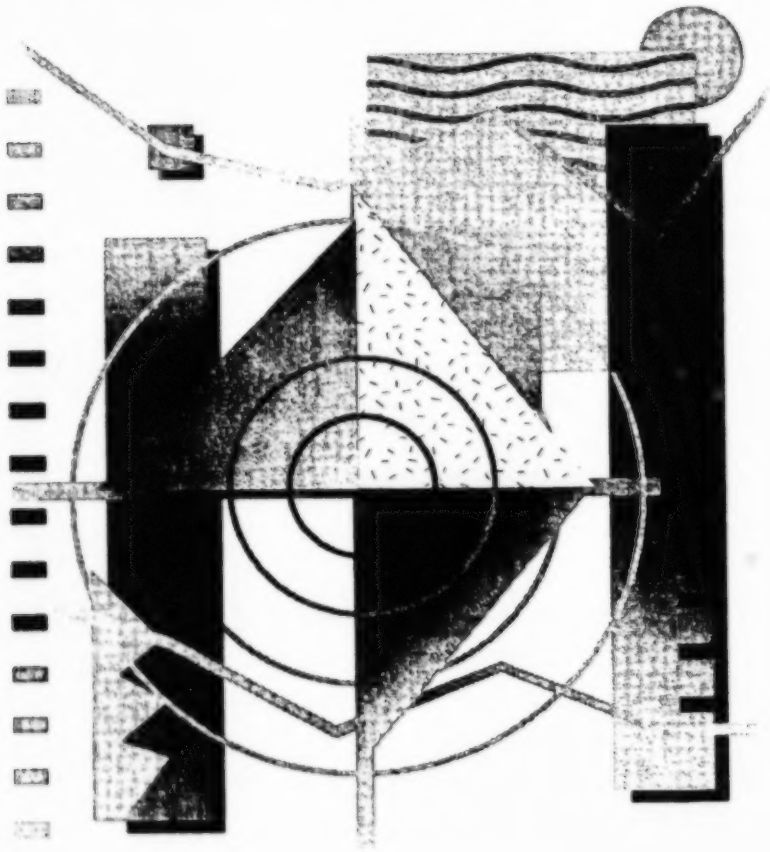
- ☐ Black, non-Hispanic
- ☐ White, non-Hispanic
- ☐ Chicano/Mexican American
- ☐ Puerto Rican
- ☐ Other, please specify _____
- ☐ Asian or Pacific Islander
- ☐ American Indian or Native Alaskan
- ☐ Hispanic

BEST COPY AVAILABLE

Appendix B

TRG
Hay/McBer

Learning Style Inventory



Test Sheet

LSI-IIa

Name: _____

Position: _____

Organization: _____

Date: _____

BEST COPY AVAILABLE

LEARNING-STYLE INVENTORY

The Learning-Style Inventory describes the way you learn and how you deal with ideas and day-to-day situations in your life. Below are 12 sentences with a choice of endings. Rank the endings for each sentence according to how well you think each one fits with how you would go about learning something. Try to recall some recent situations where you had to learn something new, perhaps in your job or at school. Then, using the spaces provided, rank a "4" for the sentence ending that describes how you learn *best*, down to "1" for the sentence ending that seems *least* like the way you learn. Be sure to rank all the endings to each sentence unit. Please do not make ties.

Example of completed sentence set:

1. When I learn: 2 I am happy. 1 I am fast. 3 I am logical. 4 I am careful.

Remember: 4 = *most* like you 3 = *second most* like you 2 = *third most* like you 1 = *least* like you

	A		B		C		D	
1. **When I learn:**	___	I like to deal with my feelings	___	I like to think about ideas.	___	I like to be doing things.	___	I like to watch and listen.
2. **I learn best when:**	___	I listen and watch carefully	___	I rely on logical thinking	___	I trust my hunches and feelings.	___	I work hard to get things done.
3. **When I am learning:**	___	I tend to reason things out.	___	I am responsible about things.	___	I am quiet and reserved.	___	I have strong feelings and reactions.
4. **I learn by:**	___	feeling.	___	doing.	___	watching.	___	thinking.
5. **When I learn:**	___	I am open to new experiences.	___	I look at all sides of issues.	___	I like to analyze things, break them down into their parts.	___	I like to try things out.
6. **When I am learning:**	___	I am an observing person	___	I am an active person.	___	I am an intuitive person.	___	I am a logical person.
7. **I learn best from:**	___	observation.	___	personal relationships.	___	rational theories.	___	a chance to try out and practice.
8. **When I learn:**	___	I like to see results from my work.	___	I like ideas and theories.	___	I take my time before acting.	___	I feel personally involved in things.
9. **I learn best when:**	___	I rely on my observations.	___	I rely on my feelings.	___	I can try things out for myself.	___	I rely on my ideas.
10. **When I am learning:**	___	I am a reserved person.	___	I am an accepting person.	___	I am a responsible person.	___	I am a rational person.
11. **When I learn:**	___	I get involved.	___	I like to observe.	___	I evaluate things.	___	I like to be active.
12. **I learn best when:**	___	I analyze ideas.	___	I am receptive and open-minded.	___	I am careful.	___	I am practical.

BEST COPY AVAILABLE

© 1993 David A. Kolb. All rights reserved. Published by McBer & Company.

BEST COPY AVAILABLE

Appendix C

Student Evaluation of Instruction

This questionnaire seeks information about your experience in the GED course. Please answer each question as accurately as you can. Circle the number that most closely corresponds to your view about each statement. If you feel you cannot answer a particular question, you can ask for assistance. Your responses are anonymous.

Thank you for your participation in this research study.

Course _____ Teacher _____

Please indicate the extent to which you agree or disagree with the following statements.

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
Course Characteristics					
1 I understand the subject matter	1	2	3	4	5
2 This course is being poorly co-ordinated	1	2	3	4	5
3 The course is challenging	1	2	3	4	5
4 Assessment methods are fair	1	2	3	4	5
5 Course materials are well prepared	1	2	3	4	5
6 Proposed aims of course are being implemented	1	2	3	4	5
7 I am learning something valuable	1	2	3	4	5
8 Recommended readings contribute to understanding in the course	1	2	3	4	5
Teacher Characteristics					
9 Communicates effectively	1	2	3	4	5
10 Teaching style makes note-taking difficult	1	2	3	4	5
11 Enthusiastic about teaching this course	1	2	3	4	5
12 Stimulates my interest in this subject	1	2	3	4	5
13 Interested in students	1	2	3	4	5
14 Accessible to students outside classes	1	2	3	4	5
15 Encourages students to express ideas	1	2	3	4	5
16 Well organised	1	2	3	4	5
17 Confident	1	2	3	4	5
18 Clear explanations given	1	2	3	4	5

BEST COPY AVAILABLE

Appendix D

Completion Certificate

This is to certify that

monica murray

has completed the **Human Participants Protection Education for Research Teams** online course, sponsored by the National Institutes of Health (NIH), on 10/05/2001.

This course included the following:

- key historical events and current issues that impact guidelines and legislation on human participant protection in research.
- ethical principles and guidelines that should assist in resolving the ethical issues inherent in the conduct of research with human participants.
- the use of key ethical principles and federal regulations to protect human participants at various stages in the research process.
- a description of guidelines for the protection of special populations in research.
- a definition of informed consent and components necessary for a valid consent.
- a description of the role of the IRB in the research process.
- the roles, responsibilities, and interactions of federal agencies, institutions, and researchers in conducting research with human participants.

National Institutes of Health
http://www.nih.gov

BEST COPY AVAILABLE

Appendix E

Attn: Helen Wussow, Assistant Dean
Adult Degree and Continuing Education Programs
Brooklyn College of
The City University of New York
2900 Bedford Avenue
Brooklyn, New York 11210-2889

Ref: Research Study

Dear Dean Wussow:

As a requirement for completion of my master's degree in special education, I am conducting a study to explore the relationship between students' learning style preferences, attitudes about instruction, and the effect on academic achievement.

The sample for this study will include students who are enrolled in the adult basic education program only. Student participants will be asked to complete the student evaluation of instruction questionnaire (SEI) and a learning style inventory (LSI) survey.

All information will be kept confidential. Participants' names will not be used. I will share the results of the study upon completion.

If you have any questions in reference to this research study, please feel free to contact me directly at (718) 602-0212. You may sign below.

I agree to participate: Helen M. Wussow Date: 12/3/01

Thank you,

Monica Murray
Student researcher

CC: S. Radlow, coordinator ABE

CE 085 214

U.S. Department of Education
Office of Educational Research and Improvement (OERI)
National Library of Education (NLE)
Educational Resources Information Center (ERIC)

REPRODUCTION RELEASE

(Specific Document)

I. DOCUMENT IDENTIFICATION:

Title: Learning STyle Modalities and Attributes of an Effective classroom Environment: An analysis of Adult learners in Basic Education classrooms.	
Author(s): Monica D Murray	
Corporate Source:	Publication Date:

II. REPRODUCTION RELEASE:

In order to disseminate as widely as possible timely and significant materials of interest to the educational community, documents announced in the monthly abstract journal of the ERIC system, *Resources in Education* (RIE), are usually made available to users in microfiche, reproduced paper copy, and electronic media, and sold through the ERIC Document Reproduction Service (EDRS). Credit is given to the source of each document, and, if reproduction release is granted, one of the following notices is affixed to the document.

If permission is granted to reproduce and disseminate the identified document, please CHECK ONE of the following three options and sign at the bottom of the page.

The sample sticker shown below will be affixed to all Level 1 documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

Sample

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

1

Level 1

☑

Check here for Level 1 release, permitting reproduction and dissemination in microfiche or other ERIC archival media (e.g., electronic) and paper copy.

The sample sticker shown below will be affixed to all Level 2A documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE, AND IN ELECTRONIC MEDIA FOR ERIC COLLECTION SUBSCRIBERS ONLY, HAS BEEN GRANTED BY

Sample

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

2A

Level 2A

☐

Check here for Level 2A release, permitting reproduction and dissemination in microfiche and in electronic media for ERIC archival collection subscribers only

The sample sticker shown below will be affixed to all Level 2B documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY

Sample

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

2B

Level 2B

☐

Check here for Level 2B release, permitting reproduction and dissemination in microfiche only

Documents will be processed as indicated provided reproduction quality permits.
If permission to reproduce is granted, but no box is checked, documents will be processed at Level 1.

I hereby grant to the Educational Resources Information Center (ERIC) nonexclusive permission to reproduce and disseminate this document as indicated above. Reproduction from the ERIC microfiche or electronic media by persons other than ERIC employees and its system contractors requires permission from the copyright holder. Exception is made for non-profit reproduction by libraries and other service agencies to satisfy information needs of educators in response to discrete inquiries.

Sign here, → please

Signature: Monica D. Murray	Printed Name/Position/Title: Monica D. Murray, Teacher Researcher
Organization/Address: Brooklyn College 2900 Bedford Ave NY 11210	Telephone: 718 602 0212 FAX:
	E-Mail Address: Date: 7/14/03

(over)

III. DOCUMENT AVAILABILITY INFORMATION (FROM NON-ERIC SOURCE):

If permission to reproduce is not granted to ERIC, or, if you wish ERIC to cite the availability of the document from another source, please provide the following information regarding the availability of the document. (ERIC will not announce a document unless it is publicly available, and a dependable source can be specified. Contributors should also be aware that ERIC selection criteria are significantly more stringent for documents that cannot be made available through EDRS.)

Publisher/Distributor:
Address:
Price:

IV. REFERRAL OF ERIC TO COPYRIGHT/REPRODUCTION RIGHTS HOLDER:

If the right to grant this reproduction release is held by someone other than the addressee, please provide the appropriate name and address:

Name:
Address:

V. WHERE TO SEND THIS FORM:

Send this form to the following ERIC Clearinghouse:

However, if solicited by the ERIC Facility, or if making an unsolicited contribution to ERIC, return this form (and the document being contributed) to:

ERIC Processing and Reference Facility
4483-A Forbes Boulevard
Lanham, Maryland 20706

Telephone: 301-552-4200
Toll Free: 800-799-3742
FAX: 301-552-4700
e-mail: info@ericfac.piccard.csc.com
WWW: http://ericfacility.org